

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated in the following listing of all claims:

1. (Currently Amended) A method for implementing a scoreboard, comprising:
associating an instruction with an index value;
associating the instruction with a scoreboard entry corresponding to the index value;
receiving an indication that a terminating event associated with the instruction has occurred; and
invalidating the scoreboard entry associated with the instruction associated with the terminating event.
2. (Original) The method of claim 1, wherein invalidating the scoreboard entry further comprises invalidating the scoreboard entry after the indication of a terminating event is received.
3. (Original) The method of claim 1, wherein:
the instruction is a load instruction; and
associating the instruction with a scoreboard entry corresponding to the index value further comprises associating the load instruction with a scoreboard entry corresponding to the index value.
4. (Original) The method of claim 3, wherein:
receiving an indication that a terminating event associated with the instruction has occurred further comprises receiving an indication that load data associated with the load instruction has been received.
5. (Original) The method of claim 1 ,wherein invalidating the scoreboard entry further comprises:
using the index to identify the scoreboard entry corresponding to the instruction; and
invalidating the scoreboard entry corresponding to the instruction.

6. (Original) The method of claim 1 further comprises:
forwarding the instruction and the index value to a load/store processing unit.
7. (Original) The method of claim 1 further comprises:
receiving the index value from a load/store processing unit.
8. (Original) The method of claim 1, wherein the scoreboard entry is one of a plurality of scoreboard entries.
9. (Currently Amended) A computer system that provides indexed scoreboarding, comprising:
a main memory;
at least one processing unit coupled to the main memory;
a module, coupled to the main memory, that associates an instruction with an index value;
a module that associates the instruction with a scoreboard entry corresponding to the index value; and
a module that is capable of receiving an indication that a terminating event associated with the instruction has occurred[[:]] and
~~a module~~ that invalidates the scoreboard entry.
10. (Original) The computer system of claim 9, wherein the module that invalidates the scoreboard entry further comprises a module that invalidates the scoreboard entry after the indication of a terminating event is received.
11. (Original) The computer system of claim 9, wherein:
the module that associates an instruction with an index value further comprises a module that associates a load instruction with an index value; and
the module that associates the instruction with a scoreboard entry corresponding to the index value further comprises a module that associates the load instruction with a scoreboard entry corresponding to the index value.

12. (Original) The computer system of claim 9 further comprises:
a scoreboard coupled to the processor, the scoreboard having a plurality of scoreboard entry spaces.

13. (Original) The computer system of claim 11 wherein the module that is capable of receiving an indication that a terminating event associated with the instruction has occurred further comprises a module that is capable of receiving an indication that load data associated with the load instruction has been retrieved.

14. (Original) The computer system of claim 9, wherein the module that invalidates the scoreboard entry further comprises:

a module that utilizes the index to identify the scoreboard entry corresponding to the instruction; and

a module that invalidates the scoreboard entry corresponding to the instruction.

15. (Original) The computer system of claim 9 further comprises:
a module that forwards the instruction and the index value to a load/store processing unit.

16. (Original) The computer system of claim 9 further comprises:
a module that is capable of receiving the index value from a load/store processing unit.

17. (Currently Amended) A computer system that provides indexed scoreboarding, comprising:

a main memory;

at least one processing unit coupled to the main memory;

means, coupled to the main memory, for associating an instruction with an index value;

means for associating the instruction with a scoreboard entry corresponding to the index value;

means for receiving an indication that a terminating event associated with the instruction has occurred; and

means for invalidating the scoreboard entry associated with the instruction associated with the terminating event.

18. (Original) The computer system of claim 17, comprising:
means for forwarding the instruction and the index value to a load/store processing unit;
means for receiving the index value from the load/store processing unit; and
means for identifying the scoreboard entry based on the index value received from the
load/store processing unit; and
means for invalidating the scoreboard entry after the indication of a terminating event is
received.
19. (Original) The computer system of claim 17, further comprising:
a scoreboard having a plurality of scoreboard entry spaces.
20. (Original) The computer system of claim 17, wherein the instruction is a load
instruction.
21. (New) A method comprising:
locating an entry in a scoreboard for an instruction with a scoreboard index returned from
an execution stage unit; and
modifying the located scoreboard entry.
22. (New) The method of claim 21 further comprising:
installing the instruction in the scoreboard entry;
associating the scoreboard index for the scoreboard entry with the instruction; and
indicating the associated scoreboard index and the instruction to the load store unit.
23. (New) The method of claim 21 further comprising maintaining the index and the
instruction in the load store unit at least until a terminating event that corresponds to the
instruction.
24. (New) The method of claim 21, wherein the instruction includes a load instruction or
a long latency instruction.

25. (New) The method of claim 21, wherein the execution stage unit includes a load store unit.
26. (New) The method of claim 21, wherein a second instruction that is dependent upon the instruction, is stalled until the scoreboard index is returned from the execution stage unit.
27. (New) The method of claim 21, wherein the modifying includes updating or resetting the scoreboard entry.
28. (New) An apparatus comprising:
a scoreboard unit that includes a plurality of entries and indexed with scoreboard indices, the scoreboard unit configurable to indicate validity and operand information for an instruction in each entry; and
an execution stage unit configurable to maintain scoreboard indices for respective instructions and to return scoreboard indices for location of respective instructions in the scoreboard unit.
29. (New) The apparatus of claim 28, wherein the scoreboard unit is further configurable to unlock scoreboard entries in response to return of respective scoreboard indices.
30. (New) The apparatus of claim 29 further comprising a decode unit configurable to stall instructions dependent upon operands indicated in locked entries of the scoreboard unit.
31. (New) The apparatus of claim 30, wherein a scoreboard entry is locked if indicated as valid and unlocked if indicated as invalid.